APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
HAVAN, THU THAO

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 02/27/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 July 2003</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-45</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-45</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☒ Interview Summary (PTO-413)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   Paper No(s)/Mail Date. _____.

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)   5) ☐ Notice of Informal Patent Application (PTO-152)

    Paper No(s)/Mail Date _____.   6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

The restriction of December 17, 2003 has been withdrawn. Furthermore,

Applicant's arguments with respect to claims 1-45 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims **1-45** are rejected under 35 U.S.C. 102(e) as being unpatentable by Cone

(US patent no. 5,850,222).

Re claims **1 and 38,** Cone teaches a method for producing an image of a

computer-simulated mannequin wearing a garment as defined by selected mannequin

and garment parameter values (col. 2, lines 14-20 and lines 34-44), comprising

generating objects corresponding to a representative mannequin and a garment placed

in a simulation scene within a three-dimensional modeling environment (col. 3, lines 41-

58), simulating draping and collision of the garment with the mannequin within the

simulation scene to generate a three-dimensional rendering frame of the mannequin

wearing the garment (col. 6, line 32 to col. 7, line 16), constraining portions of the

garment to reside within or outside of particular shells defined around the mannequin in

the rendering frame (col. 7, lines 19 to col. 8, line 53), and rendering an image from the

rendering frame (col.7, lines 18-30). In other words, Cone teaches displaying a graphic

image of a person modeling a garment wherein the virtual dressing room system

(VDRS) displays an image of the person wearing a selected garment that is tailored to

the person's figure. The VDRS then receives the person's measurements and

generates a data structure that represents the person's figure in three-dimensions. The

VDRS then tailors the two-dimensional image of the garment to the three-dimensional

representation of the person's figure. The VDRS then displays the representation of the

person wearing the tailored image of the garment. Because the person's figure is

represented in three-dimensions and because the image of the garment is digitized from

a three-dimensional mannequin wearing the garment, the VDRS provides an accurate

representation of what the person would look like wearing the garment. For example,

the VDRS uses the person's measurements to create a body data structure that

represents the person's figure. The VDRS defines a standard figure for a human body

(a mannequin) and stores a representation of the standard figure in a body data

structure. The VDRS starts with the body data structure for the standard body and

adjusts the body part data structure so they represent the person's figure. The VDRS

shapes the standard figure into the person's figure based on these measurements.

Each measurement is associated with a contour line of the body data structure.

Re claims **2, 35, and 43**, Cone discloses the rendered image is used to form a visual image on a computer display device (col. 13, lines 16-67; fig. 16). Cone teaches rendering body part and garments.

Re claims **3-4, 6-9, 13, 30-31, 33, and 36**, Cone discloses generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames (col. 9, line 47 to col. 11, line 29).

Re claims **5, 23, 42 and 45**, Cone discloses the two-dimensional images are rendered from a rendering frame using a plurality of camera positions (col. 6, lines 45-57). In other words, Cone teaches image is created by taking a photograph of the garment as it is worn by the mannequin and then digitizing the photograph.

Re claims **10-12 and 39**, Cone discloses the separate rendering frames are combined into a composite two-dimensional image using Z-coordinates of the objects (col. 4, lines 33-65). Cone teaches the z coordinates and the z axes.

Re claims **14-15**, Cone discloses a network and a processor-executable instructions (col. 1, lines 49-65).

Re claims **16, 19, 29, and 32**, the limitations of claims 16, 19, 29, and 32 are analyzed as discussed with respect to claim 1 above except for generating rendering frames containing mannequin or garment objects as defined by selected parameter values by shape blending corresponding objects of previously generated rendering frames. Cone teaches the claimed limitations (col. 9, line 47 to col. 11, line 29) when he discloses scale factor to shape the person's body. In that he generates a Bezier curve

based on the front of the lower body from the top of the stomach to the lower stomach with a control point at the navel. The SetStomach method sets the z-coordinate of the control point of the Bezier curve based on the stomach scale factor. The SetStomach method loops adjusting each contour line in the lower body starting with the top of the stomach based on the adjusted Bezier curve. The SetStomach method selects the next contour line of the lower body starting with the top of the stomach. If all the contour lines in the lower stomach have already been selected, then the method retunes. Furthermore, the SetStomach method calculates the adjustment for the selected contour line based on the Bezier curve. The SetStomach method adjusts the selected contour line from a point that is defined as the right side of the stomach to a point that is defined as the left side of the stomach.

Re claims **17-18, 20-22, 24-28, 37, and 40-41**, Cone discloses a plurality of garment panels that are connected together during the draping and collision simulation and further wherein the garment parameters include panel dimensions (col. 5, lines 15 to col. 7, line 16).

Re claim **34**, the limitations of claim 34 are analyzed as discussed with respect to claim 1 above except for a user interface and a repository. Cone teaches the claimed limitations (col. 6, lines 45-61; col. 1, lines 49-65) when he discloses a user (e.g., a tailor) specifies the location of the garment control points on the garments, the alignment of these garment control points with the body control points, and the attributes of the garment control points. As for a repository, Cone discloses the computer system thus has a repository.

Re claim **44**, the limitations of claim 44 are analyzed as discussed with respect to

claims 1 and 34 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Korszum, US patent no. 5,680,528

Inquiries

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thu-Thao Havan whose telephone number is (703)

308-7062. The examiner can normally be reached on Monday to Thursday from 9:00-

5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

JEFFERY BRIER
PRIMARY EXAMINER

Thu-Thao Havan
Art Unit: 2672
February 23, 2004